2020-07

Correlates of diarrhea and stunting among under-five children in Ruvuma, Tanzania; a hospital-based cross-sectional study

Modern, Grantina

Elsevier

https://doi.org/10.1016/j.sciaf.2020.e00430

Correlates of diarrhea and stunting among under-five children in Ruvuma, Tanzania; a hospital-based cross-sectional study

Grantina Modern, Elingarami Sauli, Emmanuel Mpolya

To download full text click that link
https://doi.org/10.1016/j.sciaf.2020.e00430

Abstract

Undernutrition affects 20% of children under five in the developing world. Stunting is a form of undernutrition when children have low height for their age. Global prevalence of stunting in 2019 was 21.4%, while current Tanzania national average is 34%. Ruvuma region has one of highest prevalence of stunting (44%) in Tanzania, which prompted this cross-sectional study on correlates responsible for this high prevalence. The study included randomly sampled children below 5 years of age who attended outpatient clinics at hospitals from Ruvuma between April – May 2019. The mean and median ages of children were 18 and 13 respectively. Among children, 46% were females and 45.6% were stunted. More male children (52%) were stunted than females. Through bivariate analysis, stunting was associated with gender ($\chi2 = 6.6759$, df = 1, p = 0.009772), handwashing before food ($\chi2 = 5.1213$, df = 1, p = 0.02363), location of hospital ($\chi2 = 3.851$, df = 1, p = 0.04972) and use of Municipal garbage collection system ($\chi2 = 3.6814$, df = 1, p = 0.05502). Moreover, diarrhea was associated with toilet sharing ($\chi2 = 5.4703$, df = 1, p = 0.002), use of household's toilet ($\chi2 = 4.0224$, df = 1, p = 0.004) and rinsing child feces into toilet ($\chi2 = 3.6814$, df = 1, p < 0.01). Multivariate logistic regression analyses showed that stunting risk increased with male gender (OR (95%CI) = 1.7945 (1.1944 – 2.712), age (OR (95%CI) = 1.3122 (1.1484 – 1.507), and decreased with handwashing before meal (OR (95%CI) = 0.5403 (0.3042 – 0.940). Finally, diarrhea risk increased with toilet sharing (OR (95%CI) = 2.154 (1.153 – 3.953) and decreased with child's use of toilet (OR (95%CI) = 0.510 (0.259 – 0.945). Our study revealed important correlates that determined observed high prevalence of stunting in Ruvuma. These correlates can be modified through health interventions to reduce this high prevalence.

Keyword

Stunting; WaSH; Diarrhea; Undernutrition; Songea; Ruvuma; Tanzania